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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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08/28/2001

Irina Menz

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5167

7590

05/20/2004

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EXAMINER

AMARI, ALESSANDRO V

ART UNIT

PAPER NUMBER

2872

DATE MAILED: 05/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	09/940,913		MENZ ET AL.	
	Examiner		Art Unit	
	Alessandro V. Amari		2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 37-54 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 37-54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 37, 38, 40-43, 45-48, 50 and 52-54 are rejected under 35 U.S.C. 102(e) as being anticipated by Lee US Patent 6,088,161.

In regard to claim 37, Lee discloses (see for example, Figures 1, 8-11, 14 and 20) an optical security feature, having at least one at least dual-channel hologram for the holographic reconstruction of different images from different directions of gaze, in which different regions of the hologram are associated with the different channels (4, 5) and the regions of the hologram reconstructing the respective image under incident light have sub-regions which do not take part in the image reconstruction as described in column 2, lines 36-52, column 3, lines 63-67, column 4, lines 1-3, column 7, lines 37-58, column 9, lines 8-39, wherein the sub-regions comprise optical properties which have later been modified by a laser or printing and the modified optical properties can only be seen from the respective direction of gaze. In product-by-process claims, "once a product appearing to be substantially identical is found and a 35 U.S.C. 102/103 rejection [is] made, the burden shifts to the applicant to show an unobvious difference."

MPEP 2113. This rejection under 35 U.S.C. 102/103 is proper because the "patentability of a product does not depend on its method of production." *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985).

Regarding claim 38, Lee discloses that the sub-regions are arranged such that in the holographic reconstruction of the region to which the sub-region belongs, a recognizable image pattern or information results as described in column 7, lines 37-58, column 9, lines 8-39.

Regarding claim 40, Lee discloses that the at least one hologram holographically reconstructs diffuse object beams from different directions as described in column 7, lines 37-58 and column 9, lines 8-39.

Regarding claim 41, Lee discloses that the at least one hologram holographically reconstructs shaped object beams from different directions as described in column 2, lines 36-52, column 3, lines 63-67, column 7, lines 37-58 and column 9, lines 8-39.

Regarding claim 42, Lee discloses that the at least one hologram comprises an embossed hologram structure as described in column 8, lines 28-31.

Regarding claim 43, Lee discloses that the regions for the reconstruction in different directions of gaze each comprise color-separated rainbow holograms as described in column 6, lines 32-63.

Regarding claim 45, Lee discloses that the regions for the reconstruction in different directions of gaze comprise a plurality of linear alternately arranged parts as described in column 2, lines 9-15, column 3, lines 63-67, column 4, lines 1-3 and as shown in Figure 1.

Regarding claim 46, Lee discloses that the regions each comprise a plurality of parts having at least one pixel as described in column 6, lines 21-32.

Regarding claim 47, Lee discloses that the regions for the holographic reconstruction in different directions of gaze each contain a plurality of parts having at least one pixel per primary color as described in column 6, lines 21-50.

Regarding claim 48, Lee discloses that at least one hologram is designed in a reflecting manner on the rear side and comprises a rear metallic coating as described in column 7, lines 52-58 and the abstract.

Regarding claim 50, Lee discloses that the dual channel hologram for the holographic reconstruction of two images from different directions of gaze is used which is designed such that a stereoscopic image is produced on observation as described in column 2, lines 36-44, column 3, lines 63-67 and column 4, lines 1-3.

Regarding claim 52, Lee discloses that the at least one hologram is arranged in front of a reflecting background as described in the abstract.

Regarding claim 53, Lee discloses a data carrier having at least one optical security feature as described in column 1, lines 11-19 and column 6, lines 20-44.

Regarding claim 54, Lee discloses that the regions each consists of strip-like parts alternately arranged as described in column 2, lines 9-15, column 3, lines 63-67, column 4, lines 1-3 and as shown in Figure 1.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 39, 44 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee US Patent 6,088,161 in view of Heckenkamp et al US Patent 6,337,752.

Regarding claims 39, 44 and 49, Lee teaches the invention as set forth above but does not teach in regard to claim 39 that the sub-regions comprise recesses in the regions reconstructing the respective image under incident light or in regard to claim 44 that the regions for the reconstruction in different directions of gaze each comprise multi-color, volume holograms or in regard to claim 49 that the sub-regions comprise blackenings in the regions reconstructing the respective image under incident light.

Regarding claim 39, Heckenkamp et al does teach that the sub-regions comprise recesses in the regions reconstructing the respective image under incident light as described in column 16, lines 50-53.

Regarding claim 44, Heckenkamp et al does teach that the regions for the reconstruction in different directions of gaze each comprise multi-color, volume holograms as described in column 18, lines 17-67 and column 19, lines 1-7.

Regarding claim 49, Heckenkamp et al does teach that the sub-regions comprise blackenings in the regions reconstructing the respective image under incident light as described in column 16, lines 39-51.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the recesses and blackenings for the sub-regions and the volume hologram for the regions as taught by Heckenkamp et al in the device of Lee in

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order to provide for individualizing measures which are irreversible and to exploit advantages of scale production as described in column 4, lines 46-60 of Heckenkamp et al.

5. Claim 51 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee US Patent 6,088,161 in view of Solmsdorf US Patent 5,808,758.

Regarding claim 51, Lee discloses the invention as set forth above but does not teach that the hologram is arranged in front of a dark background.

Regarding claim 51, Solmsdorf does teach that the hologram is arranged in front of a dark background as described in column 3, lines 64-67 and column 4, lines 1-6.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the black background as taught by Solmsdorf in the device of Lee in order to improve the contrast of the image for better viewing.

Response to Arguments

6. Applicant's arguments filed 09 February 2004 have been fully considered but they are not persuasive.

The Applicant argues that the prior art Lee et al fails to disclose subregions having parts with optical properties later modified by laser. The Applicant then refers to Walters which the Applicant asserts teaches removing a metal layer by etching apertures with a laser which would create information visible under all viewing angles unlike the claimed invention which provides a security feature. The Applicant contrasts the combination of Lee with Walters with his claimed invention which comprise a dual channel hologram with strip like parts having two images visible from different viewing

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angles. Further, the strip like parts are provided with sub-regions having modified optical properties which can only be seen from a specific direction of gaze.

In response to this argument, the Examiner has indicated in the prior art rejection of new claim 37, that it is a product by process claim and that the rejection is proper because the patentability of a product does not depend upon its method of production. Further, Lee does indeed teach a dual channel hologram with strip like parts having two images visible from different viewing angles as described in column 2, lines 9-44 and specifically in lines 36-44. Furthermore, Lee also teaches that the strip like parts are provided with sub-regions having modified optical properties which can only be seen from a specific direction of gaze as described in column 9, lines 20-45. For example, Lee in column 9, lines 20-25 states:

"In one embodiment of the invention, one or more of the images generated by the diffractive device may consist of a uniform or blank image plane which can be encoded with image information by the destruction or modification of diffracting elements at selected locations along selected diffraction tracks."

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within


TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alessandro V. Amari whose telephone number is (571) 272-2306. The examiner can normally be reached on Monday-Friday 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ava 
04 May 2004


MARK A. ROBINSON
PRIMARY EXAMINER